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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/515,979	11/29/2004	Jong-Hun Kim	0808-0349PUS1	2585
2292	7590	09/30/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			BOYKIN, TERRESSA M	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/515,979

Applicant(s)

KIM ET AL.

Examiner

Terressa M. Boykin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11-29-04</u> . | 6) <input type="checkbox"/> Other: _____  |

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**Priority**

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United

**Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6365702 disclosed cols. 1-5 and claims 7 and 8.**

**US 6365702** discloses a method for preparing a polyestercarbonate copolymer using solid state polymerization and polyestercarbonates prepared thereby is described. The method comprises preparing a mixture comprising partially crystalline bisphenol A polycarbonate oligomer and hydroxy acids, aliphatic diacids, cycloaliphatic diacids, aromatic diacids or aromatic triacids and subjecting that mixture to solid state polymerization to afford a polyestercarbonate copolymer.

More recently, SSP has been used as an alternative process for the preparation of high molecular weight polycarbonates. SSP utilizes substantially lower temperatures than the melt process. Typically SSP is carried out in a range between about 180 and about 230.degree. C. The SSP process does not require handling molten polymer (melt) at high temperatures and the equipment needed to perform the reaction is very simple. In a typical solid state polycondensation process, a suitable polycarbonate oligomer is subjected to programmed heating above the glass transition temperature of the polymer but below its sticking temperature with removal of the volatile by-product. The polycondensation reaction proceeds strictly in the solid state under these conditions.

The SSP process is typically conducted in two stages. In the first stage, a low melt viscosity linear polycarbonate oligomer is synthesized by the melt phase reaction of a bisphenol with diaryl carbonate. Usually, a mixture of a dihydroxydiaryl compound and a

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diaryl carbonate is heated at 150.degree. C. to 325.degree. C. for 4 to 10 hours in presence of a transesterification catalyst to prepare an oligomer having weight average molecular weight of 2,000-10,000 daltons and having both hydroxyl and carbonate end groups. This oligomeric polycarbonate is referred to as the precursor or precursor polycarbonate. Thereafter, crystallization of the linear polycarbonate oligomer may be effected either by (a) dissolving the oligomer in a solvent and evaporating the solvent in presence of a suitable catalyst or (b) suspending the oligomer in diluent and refluxing it for 0 to 10 hrs in presence of a suitable catalyst followed by evaporating the diluent or (c) heating the oligomer at a temperature which is higher than the glass transition temperature of the oligomeric polycarbonate undergoing crystallization but below its melting point, in the presence of a suitable catalyst. It has been observed that diphenyl carbonate serves as a crystallization aid during thermal crystallization. Illustrative solvents and diluents include aliphatic aromatic hydrocarbons, ethers, esters, ketones, and halogenated aliphatic and aromatic hydrocarbons. The resulting oligomer has a crystallinity of between 5% and 55% as measured by a differential scanning calorimeter.

**US 6365702** discloses a method for preparing high molecular width polycarbonate resins prepared from the same components as claimed by applicants.

Since the disclosed parameters i.e. pressure etc., are expressed differently and thus may be distinct from those claimed, it is incumbent upon applicant(s) to establish that they are in fact different and whether such difference is unobvious. In view of the above, there appears to be no significant difference between the reference and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

### **Correspondence**

Please note that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov) <<http://www.uspto.gov>>), from the Office of Public Records and from commercial sources. Applicants may be referred to the Electronic Business Center (EBC) at <<http://www.uspto.gov/ebc/index.html>> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is


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571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( 571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tmb

  
Examiner Terressa Boykin  
Primary Examiner  
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